B. F2000 Preparation Rules

F2000 is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. IF IN DOUBT, DON'T. Homologation is required for all cars registered after January 1, 1983. Description: Single seater racing cars as defined by these regulations.

B.1 General Construction Restrictions

NOTE: Contained herein are the 1986 Formula F chassis construction requirements revised January 1, 2013. All new Formula 2000 cars are to be built to these specifications. For cars registered prior to January 1, 1986, see section SCCA GCR B.21.

a. Titanium, boron, beryllium, lithium-aluminum alloys, and metal matrix composites are prohibited.
b. Composite materials containing fibers with a tensile modulus in excess of 100 GPa (this definition includes carbon fiber, Kevlar, Zylon, and Dyneema) are prohibited unless specifically permitted.
c. Fuel Capacity: Maximum capacity 41 liters (10.8 gallons)
d. Refer to the Formula F and F2000 Dimensions Table for general dimensional limitations.

B.2 Chassis/Frame

a. The chassis shall be of steel space frame construction. Monocoque-type structures are prohibited.
b. The soles of the driver's feet shall not extend beyond the front edge of the wheel rims in normal position (i.e., pedals not depressed) and shall remain behind the front bulkhead (per SCCA GCR 9.4.5). The lower main frame rails shall be a minimum of 25 cm (9.8 inches) apart (inside dimension) from the front bulkhead to the main roll hoop.
c. Forward-facing braces that protect the driver's legs and feet shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the transverse section of the frame immediately ahead of the pedals and drivers feet.) This does not preclude a secondary forward bulkhead ahead of this "front" bulkhead. This secondary bulkhead may be constructed from aluminum plate.
d. A stress bearing floor pan constructed from a minimum of 1.5 mm (.060 inch) heat treated aluminum sheet or 18 gage steel sheet is required. At a minimum, it shall extend from the front bulkhead to the main roll hoop bulkhead. Its curvature shall not exceed 25.4 mm (1.0 inch). The floor pan may be constructed in multiple sections.
e. The front bulkhead, forward roll hoop (dash hoop) bulkhead and main hoop bulkhead may also utilize stress-bearing panels. No other stress-bearing panels are allowed.
f. Stress-Bearing Panel Definition: Any sheet material that is attached to the frame by welding, bonding, riveting, threaded fasteners, or any combination thereof, the centers of which are located closer than 15 cm (6 inches). The distance between fasteners is measured on the surface of the panels. No

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materials other than aluminum or sheet steel are allowed for use as stress-bearing panels. Stabilized materials (honeycomb) are not permitted as stress-bearing panels.

g. The area between the upper and lower main frame tubes from the front roll hoop bulkhead to the main roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend forward to the secondary bulkhead of B.2.c and aft to the front face of the engine to protect the fuel cell.
    1. Panel(s), minimum of either 1.5 mm (.060 inch) heat treated aluminum (6061-T6 or equivalent) or 18 gage steel, attached to the outside of the main frame tubes.
    2. Reinforced body consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.)
    3. Composite panels attached to the outside of the main frame tubes. These panels must be at least 1.5 mm (.060 inch) in thickness and at least as strong as 1.5 mm (.060 inch) 6061-T6 aluminum. They may be constructed from any material including those defined in B.1.b.

    For any of these methods, panels may not be attached to the frame with fasteners closer than 15 cm (6 inch) centers measured along the surface of the panel. The steel tubes used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.
h. The engine, bell housing/oil tank and gearbox are permitted to be stressed and/or load bearing. Bell housings and gearbox housings must be metal.
i. A firewall(s) that seals the drivers' compartment (cockpit) and the engine compartment is required. Forward facing ducts may be installed to deliver air directly to the engine compartment. Air duct openings may be located within the cockpit provided the firewall is extended to prevent the passage of flame and debris from reaching the driver.
j. Brackets for mounting components, such as the engine, transmission, suspension pickups, instruments, clutch and brake components, and body panels may be made from any material not prohibited in B.1.b
k. Impact attenuator(s) are required: See SCCA GCR 9.4.5.G.
l. No engine oil or water tubes are allowed within the cockpit, except for shielded (stainless steel braid) mechanical oil pressure lines. Chassis tubes shall not be used as oil or water transport tubes.
m. Fuel cell vents shall be located at least 25 cm (9.8 inches) to the rear of the cockpit.

B.3 Bodywork

For the purposes of this section, bodywork includes all panels external to the chassis/frame and licked directly by the air stream. This includes panels above or below the floor pan and the bottoms of any side pods.

a. The bodywork opening giving access to the cockpit shall have the following minimum dimensions:
    Length: 60 cm (23.6 inches)
    Width: 45 cm (17.7 inches)

    This width extends over a length of 30 cm (11.8 inches) minimum. This

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minimum rectangular opening may exist anywhere forward of the firewall. Forward-facing roll bar/cage bracing and padding will not be considered in these dimensions.

b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel, with the exception of the steering wheel and/or drivers head surround. The steering wheel and the surround must be removable by the driver and/or safety workers without the use of any tools. Readily legible removal instructions for safety workers are recommended. Bead seats are recommended.
c. Bodywork, rear spoiler(s) and any attached components except for suspension components shall not exceed a maximum width of 95 cm (37.4 inches). No part of the bodywork, rear spoiler, or exhaust system shall extend more than 80 cm (31.5 inches) behind the centerline of the rear axle nor exceed in height a horizontal plane 90 cm (35.4 inches) above the ground with the car as qualified or raced with the driver on board. The safety roll bar/roll cage and engine air box are not included in these restrictions. Allowances shall be made for radius of bodywork along primarily horizontal surfaces in this area. Undertrays and floorpans may extend laterally past cockpit sides, sidepods, and engine compartment enclosures, but only up to the 95 cm (37.4 inches) maximum allowed width.
d. Diffusers and undertrays shall not exceed a maximum width of 95 cm (37.4 inches). No part of the diffuser or undertray shall extend more than 80 cm (31.5 inches) behind the centerline of the rear axle nor exceed in height a horizontal plane 90cm (35.4 inches) above the ground with the car as qualified or raced with the driver on board.
e. Carbon fiber may be used for cockpit interior panels, radiator ducts, air intakes and mirrors. The cockpit is defined as that space inside the bodywork from the main roll hoop forward to the front bulkhead. Cockpit interior panels may not be attached to the frame with fasteners closer than 15 cm (6 inches) centers measured along the surface of the panel.
f. Kevlar may be used for reinforcement of any bodywork.

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B.4 Control of Undersides Shaping

It is the intent of these rules to minimize (not eliminate) the use of "ground effects."

a. A reference area is defined as:
   The full width of the lowest surfaces of the car licked by the air stream between the rear edge of the front tires and the front edge of the rear tires.
   These surfaces may include the floor pan, undertray, diffuser, side pod bottoms and any essentially horizontal bodywork that is included in the lowest surfaces licked by the air stream. Within this reference area, the lowest surfaces licked by the air stream must be flat with a total vertical tolerance of 2.5 cm (1.0 inch). An undertray beneath the engine, bell housing and/ or gearbox is not required.
   1. Mirrors and any primarily vertical bodywork (for example, cockpit or radiator sides) that are oriented 45 degrees or greater relative to the ground may extend laterally past the outer edges of the floor pan and/or undertray and are not subject to these reference area restrictions.
   2. Fairings for streamlining suspension pickups are not subject to these

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reference area restrictions but shall be symmetrical about their horizontal axis.

3. The perimeter of any reference area surface that transitions upward to any bodywork may use a maximum 2.5 cm (1.0 inch) radius and shall be included in the reference surface measurement.

b. Measurement for compliance of the defined area shall be performed as follows:
    1. A non-flexible straight-edge bar shall be placed against the lower surface of the reference area in a suitable section (unworn and flat enough to prevent rocking of the bar) from which the bar can be oriented to measure all parts of the reference area. The competitor shall be responsible for the availability and condition of such a surface. The bar shall be of sufficient length to reach all portions of the reference area from that surface.
    2. All measurements shall be taken vertically from the bar to the reference area surfaces. The total maximum vertical distance (additive upward and downward) from the bar to any part of the reference area surfaces shall be 2.5 cm (1.0 inch). Skid blocks and or rub strips are not included in this measurement.
c. No aerodynamic devices (for example, skirts, body sides, skid planks, undertrays, skid blocks, etc) may extend more than 1 cm (.4 inches) below the reference area.

An example of venturi tunnels is shown in the following figure.

B.5 Aerodynamic Aids

a. A wing shall be defined as any shape that has a leading edge and a trailing edge and creates downforce.
b. Both front and rear wings are a requirement for F2000. See Formula 2000 Dimensions Table. Cockpit or remote adjustment is not permitted. Wings and airfoils shall not be adjusted while the car is in motion.
c. Any part of the car which that has an influence on the aerodynamic stability of the vehicle shall be firmly attached with no provisions for adjustment to vary downforce while the car is in motion.
d. It is not permitted to duct air through any part of the bodywork for the purpose of aerodynamic downforce. There shall be no forward facing gaps or openings in or about the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling. All ducted air for heat

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exchangers shall pass through those heat exchangers. Front and rear wing assemblies are allowed gaps between wing elements.

e. Primarily vertical (see B.4.a.1) air diverters greater than 30 inches forward of the main hoop (i.e. “bargeboards”) that stand away from the cockpit sides and are attached to (or through) the cockpit sides, undertrays and/or sidepods shall be prohibited.
f. Diffuser undertrays to the maximum allowed bodywork width are permitted, but any portion within the reference area (B.4) must comply with the reference area measurement rules.
g. Wings, endplates and their attachment(s) may incorporate Kevlar reinforcement.

B.6 Suspension

Suspension is defined as the system of springs, shock absorbers, control arms, links, etc., supporting the vehicle on its wheels. Anti-roll bars, anti-roll bar links, and steering components are not considered as suspension in this section and are unrestricted.

a. All suspension components shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings, bushings, spring caps, abutment nuts, shock absorber caps and nuts, which may be of aluminum alloy.
b. Front and rear hub carriers shall be only steel, aluminum or magnesium alloy for cars manufactured after January 1, 1983.
c. Springs shall be steel only.
d. Control arms and all associated items that attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit. “Anti-intrusion” bars are highly recommended on front suspension arms.
e. Shock absorber design is unrestricted but casing material must be steel or aluminum alloy.
f. It is not permitted to attach spoilers, fairings or other devices that may exert downforce to movable suspension members. If the suspension member is of streamline or airfoil cross section, it shall be symmetrical about its horizontal axis. Brake lines may be attached to suspension members and may be enclosed in a symmetrical fairing.

B.7 Brakes

Unrestricted, except:

a. Calipers must be ferrous or aluminum alloy with no more than 4 pistons.
b. Brake rotors must be ferrous.

B.8 Steering

Unrestricted.

B.9 Wheels

Wheels are unrestricted except that:

a. Material must be metal.
b. Diameter shall be thirteen (13) inches.

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c. Rim width shall not exceed 6.0 inches front and 8.0 inches rear.
d. All measurements shall be taken between the beads.

B.10. Engines

The only permitted engines are:
The Ford 2 liter single overhead camshaft "NE" series engine or the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine.
The Ford Zetec ZX3 2 liter dual overhead camshaft engine (see section B.11.)
The Ford 2 liter single overhead camshaft "NE" series engine and the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine shall conform to the following specifications. The nominal bore is 90.84mm and the nominal stroke is 76.95mm (Note: All blocks shall contain casting number HM6015BA, HM6015AA, HM6015BB, HM6015AB, HM6015DA, or HM6015AD. Dashes in the casting number are not relevant.). Production tolerances are permitted providing the total swept volume does not exceed 2000cc.

a. The rockers shall remain entirely unmodified. Alternate manufacturers may be used as long as the original materials and dimensions are the same. Camshafts must be from Ford Motor Company, or Crower part #E57553 FF2000, *or any camshaft that is a replica of the original and of the same material may be used*. Camshaft geometry shall be stock. *An alternate optional camshaft, Elgin part number 2000FC, may be used only in the original iron head.* Regrinding camshaft lobes is permitted as long as the camshaft lobe center is 112° ± 2°. Offset keys are permitted. Tuftriding or Parkerizing is permitted. Maximum valve lift at determined points by camshaft rotation will be established. The use of a low rate substitute valve spring is permitted. Load characteristics of special checking spring: twelve (12) lbs., at 1.417 inches, thirty (30) lbs., at 1.000 inches. An adjustable camshaft sprocket which retains the same number of teeth and pitch as the stock sprocket may be used.

b. *A standard crankshaft shall be used or any crankshaft that is a replica of the original crankshaft and of the same material may be used.* Spot machining to achieve balance is permitted. Tuftriding, Parkerizing, shot peening, shot blasting, and polishing are permitted. Minimum weight: twenty-seven point five (27.5) lbs.

c. The flywheel shall be a standard component or the approved alternate Elite-001. The minimum weight is *10.5* lbs. with ring gear.
The flywheel may be machined to achieve minimum weight. Spot machining to achieve balance is permitted. Flywheel bolts are free and locating dowels are permitted. A 1600 GT starter ring may be fitted. The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel. Carbon fiber clutches are not permitted.

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d. Maximum compression ratio will be controlled as follows:
1. Minimum Cylinder Head combustion chamber volume 49cc (not including head gasket). Polishing and/or tooling of the cylinder head to achieve only the required combustion chamber volume is permitted.
2. Standard Ford gasket, Fel-Pro #8361PT, or Ferrea part number G50100 may be used. Gaskets will have a minimum thickness of 0.9mm, minimum diameter of cylinder aperture of 92mm.
3. Pistons shall not protrude above cylinder block surface at TDC.

e. It is permissible to reshape inlet and exhaust port by removal of metal within limits. Addition of material in any form is prohibited. Maximum diameter of inlet port at manifold head face 39.5mm. Maximum dimensions of exhaust port at manifold face 35.5mm x 27mm. The distance between the valve centers and the angles of the valves shall not be altered.

f. Pistons shall be standard Ford Mahle, AE Hepolite, CP, or J&E. Pistons must be unmodified in any way except for balancing and as detailed herein.
The following combinations are permitted:

1. Mahle piston P/N 80HM6102LA with rings, pin, connecting rod (with bolts), but without bearings:Minimum permitted weight = 1332.5 grams.

2. Mahle piston P/N 85HM6102DA with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.
NOTE: This piston may have either casting #90V108 or #90V118.

3. AE Hepolite piston P/N 21426, casting P/N 21426 (AE Hepolite) with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.

4. CP piston P/N IV 2.0 LTR with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams. Part number and Ivey logo stamped on wrist pin bosses.

5. JE piston P/N M-6102-B200 with rings, pin, connecting rod (with bolts), but without bearings: Minimum permitted weight = 1240 grams.
NOTE: M-6102-B200 piston assembly is now made by JE and is visually different. I.D. Marks: M-6102-B200, Ford racing logo. All marks pin stamped on wrist pin bosses.
Rings are unrestricted provided that:

A. One oil control and two compression rings are used.

B. No modification is made to the piston for the installation of

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the rings.
Localized machining of the gudgeon pin bosses to achieve balance and weight by simple machining; all external surfaces, dimensions, and profiles shall remain standard with the exception of the top surface of the piston crown which may have simple machining to achieve balance, and as required in current SCCA GCR.

g. Valves may be of Ford manufacture or Ferrea part numbers VSOIN200 and VSOEX2000. Valves shall remain standard; no reprofiling or polishing is permitted.
The original forty-five (45) degree seat angle shall be maintained.
Maximum face diameter inlet 42.2mm.
Maximum face diameter exhaust 36.2mm.
Maximum valve stem diameter 8.4mm.

h. Full connectng rods may be standard Ford, Cosworth, Oliver, or Crower. The approved Crower part numbers are SP93230B-4 or SP93230PF-4. Any rod bolts may be used. Floating piston pins may be used. Standard rod length must be 5.00 inches (+.005" -.010"). Machining is permitted to remove metal from the balancing bosses to achieve balance only. Tuftriding, Parkerizing, shot peening, shot blasting, polishing, etc., are permitted.

i. Maximum valve lift against cam angle with zero tappet clearance: See current GCR

j. Engines will be mounted upright, and aligned fore and aft in the chassis.

k. A single carburetor only will be used on a standard inlet manifold. The carburetor will be a Weber 32/36 DGV 26/27mm venturi, its origin being from a 1600 GT "Kent" or 2000 SOHC NE engine. The Holly 5200 32/36 carburetor also may be used; carburetor with the swaged fuel inlet fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting. The air cleaner may be removed and a trumpet fitted, and jets may be changed, both throttles may open together, cold start devices and diffused bar may be removed, internal and external antisurge pipes may be fitted, and seals on emission control carburetors may be removed. The bottom of the lower column portion of the auxiliary venturi may be machined for purposes of high speed enrichment. No other modifications are permitted. Chokes (venturi) shall remain standard and no polishing or profiling is permitted.

l. The addition of material by any means to any component is prohibited.

m. It is permitted, as a means of repair, to replace damaged valve seats and cylinder bores by replacement cast iron valve seat inserts and cast iron cylinder liners; valve guides may be replaced with cast iron or bronze, all to standard dimensions. Repairs to the cam towers to facilitate replacement of cam bearing and/or replacements of broken or cracked towers is permitted as long as the cam

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bearing center line is not changed and that one original cam tower is retained. Line boring of cam bearing caps is permitted.

n. Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

o. Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

p. Standard valve spring retainers shall be used, and single valve springs only are permitted. Shims are permitted, and valve springs are otherwise free.

q. Exhaust system and manifold are unrestricted, within SCCA safety regulations.

r. Lubrication system is unrestricted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.

s. Oil coolers are unrestricted.

t. Cooling system unrestricted. The radiator, if housed in or incorporating a cowl air-scoop deflector, shall comply with body regulations.

u. Fuel Pump: Unrestricted.

v. Distributors are unrestricted providing they retain the original drive and location. The distributor is defined as the component which triggers the L.T. current and distributes the H.T. current. The Ignition Timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition.

w. Only the standard inlet manifold shall be used.
The ports may be reshaped by the removal of metal as long as the following dimensions are maintained: maximum size at head face = 1.437" (36.5mm), maximum size at carburetor flange = 3.405" (86.5mm) x 1.595" (40.5mm). The carburetor seat face may be machined to horizontal in the fore to aft plane. The diameter of the ports may exceed the above listed dimensions if the casting bore is untouched and in its original state. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

x. Gaskets and seals are unrestricted except for the cylinder head gasket that has the requirements listed in B.3.D.2. and the intake gasket. The intake gasket thickness must not exceed 1.1mm. Intake gasket is not to be construed as a spacer.

y. Pump, fan, and generator drive pulleys are unrestricted.

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z. The crankcase breather may be altered or removed, but all breathers shall discharge into a catch tank.

aa. Mechanical tachometer drives may be fitted.

bb. Generators are optional.

cc. Standard oversize and undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.

dd. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine is permitted.

ee. Only modifications or additions specifically covered by these regulations are permitted. All engine components not covered by these regulations shall remain completely standard and unmodified. When a system is specified to be “unrestricted” (e.g. paragraphs r and t), the restrictions of this paragraph do not apply.

ff. The use of the Fast Forward aluminum cylinder head is permitted.
The following dimensions must be maintained.
Intake port maximum volume 70.0 cc.
Exhaust port maximum volume 52.0 cc.
Intake port surface to exhaust port surface 5.580 +/- 0.020 inches
Intake valve center line to (adjacent) intake valve center line 4.015 +/- 0.015 inches
Exhaust valve center line to (adjacent) exhaust valve center line 4.015 +/- 0.015 inches
The machine tool marks in the intake and exhaust ports must remain untouched for 0.750 inches from the respective gasket surfaces.
gg. Any spark plugs may be used.

B.11. Engines - Zetec

The Ford Zetec ZX3 engine shall conform to the following specifications and may be modified only as specifically allowed. If these specifications do not explicitly allow a modification, then it may not be done. The philosophy of the Zetec engine in FC is to allow limited engine rebuilds but no performance modifications to the engine. Blue printing, balancing, head porting, polishing, etc. are strictly prohibited and against the spirit of the Zetec formula. Where Ford part numbers are specified, normal industry part number supersession is expected and the superseding part numbers are automatically included.

a. The cylinder head may not be ported or polished. Machining the cylinder head is not permitted except as specified in these rules. A standard three-angle “production” valve job is required and the only allowed angles are those defined in the Ford factory manual. The intake valve seats must be 30° 45° 70° with the 45° face a minimum 1.5 mm wide. The exhaust valve seats must be 30°

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45° 55° with the 45° seat 1.5 mm wide minimum. The camshaft, valves, springs, and shim/bucket components must be original Ford parts and may not be modified in any way. Only original unmodified Ford parts may be used for direct replacement. The camshafts must remain as ground by Ford; no polishing is permitted. Valve seats may not be replaced. The head may not be surfaced or milled beyond the minimum thickness of 5.230" measured between the cam cover seating surface and the lower plane of the head. Only the Ford #RFYS4E6090AC or RFYS4E6090AD head is allowed. The only allowed camshafts are the Ford #L913B YSAA intake and #L913B C2B exhaust. The original, unmodified Ford camshaft and crankshaft timing pulleys must be used. Required camshaft timings are as follows:

Intake centerline 116-117 degrees ATDC
Exhaust centerline 106-107 degrees BTDC

b. Pistons, crankshaft, and rods may be replaced only with standard original Ford replacement parts. The crankshaft may be ground or polished for the purpose of installing oversize main or rod bearings. The rod journals must remain stock and the rods may not be bored or remanufactured in any way. The rod and crankshaft bearings may be replaced only with original or oversized Ford bearings. The required original crankshaft main bearing journal dimension is 2.282-2.283 inches and the required original crankshaft rod journal dimension is 1.846-1.847 inches. The corresponding main journal dimensions for oversized bearings are either 2.273-2.274 inches or 2.263-2.264 inches; the corresponding rod journal dimensions for oversized bearings are either 1.837-1.838 inches or 1.827-1.828 inches. The crankshaft centerline to deck dimension is 8.378 inches and may not be altered. The main bearing housing bore is 2.452-2.453 inches and the rod housing bore is 1.9642-1.9650 inches. Only original Ford rod bolts with a minimum weight of 24.6 grams or ARP rod bolts with a minimum weight of 23.5 grams may be used.

c. Only original stock Ford replacement piston rings may be used. The ring end gaps may not be altered and must remain as manufactured by Ford. All of the rings must be installed including the complete oil scraper assembly. The piston bore may be honed solely to allow piston ring seating. The first and second compression rings must be installed in the positions designated by Ford.

d. All surfaces on the head, block, rods, pistons, and crankshaft must remain as manufactured by Ford and may not be altered in any way. The original casting marks and cast surfaces must remain as-cast and also meet all of the Ford design values and tolerances as stated in the Ford factory manual or as delineated in these specifications. The block may not be decked. Only Ford Zetec ZX3 blocks with block numbers #RFYS4G6015AA, or #RFYS4G6015AD or #RFYS4G6015AE are permitted. The required compression ratio is 9.6:1, the required standard bore is 3.3390 – 3.3410 inches and the required stroke is 3.461 inches. The maximum bore dimension of 3.3410 inch is intended to allow for cylinder wear only. It is not

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permitted to machine to this dimension. This measurement will be taken .250 below the block deck where the bore is untouched by the piston ring.

e. Flywheel: The minimum weight is 8.0 lbs. and any weight removal from the specified flywheel must come from the clutch plate surface. Only the Quarter Master #QM107160 flywheel may be used.

f. Any 7¼ inch single plate or double plate, non-carbon fiber clutch is allowed.

g. Any oil pan is allowed. The oil pan may not contain an oil scraper between the oil pan and the block. No device in the oil pan may be contoured to the crankshaft assembly to function as an oil scraper nor may any device be closer to the rotating crankshaft assembly than 0.5 inches.

h. Any three-stage oil pump with a maximum of two scavenge stages is allowed. The maximum scavenge rotor dimensions are 1.600 inches in diameter and 1.375 inches in length. The minimum pressure rotor dimensions are 1.600 inches in diameter and 0.863 inches in length.

i. The exhaust system manifold tubing OD must be 1.5 inches and the manifold tubes must be a minimum of 24 inches in length and must terminate into a single exhaust pipe through a 4 into 1 collector. The collector angles must be the standard 15 degree bend, (30 degree included angle) with an exit diameter of 2 inches. The tail pipe must be a minimum of 24 inches in length. The tail pipe includes a muffler, if present, as long as the inlet and outlet pipes of the muffler are the same diameter as the tail pipe. 4 into 2 into 1 exhaust collectors or reduced diameter venturi sections are prohibited.

j. ECU: The Pectel T2 unit is required. The current specification "SCCA Club" map is required. Failure to use the current "F2kCS" map will result in an automatic penalty of 1 year suspension from F2kCS racing. The map is available on the F2kCS web site.

k. Intake manifold and fuel injection components: The Quicksilver Race Engines (QSRE) intake air scoop, intake manifold, throttle bodies, air horns, fuel rail and injector system are required and must be used with no modifications of any kind. The only allowed intake manifold and throttle body combination is the #0138 manifold available through QSRE. Only stock Ford fuel injectors may be used and they may not be modified in any way. Fuel injectors may be replaced only with stock Ford injector part number #0280155887 XS4U-AA.

l. Intake restrictor: The QSRE #1975 intake restrictor must be used.

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It must not be modified in any way. The new restrictor internal diameter is 1.340 inches and this value cannot be exceeded in any measurement of the diameter. The restrictor port centerlines or shape may not be altered.

m. Engines will be mounted and aligned fore and aft in the chassis

n. The addition of material by any means to any component is prohibited

o. Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

p. Oil coolers are unrestricted.

q. A liquid cooling system is mandatory, but radiator and water pump are unrestricted.

r. Fuel pump is unrestricted.

s. Gaskets and seals are unrestricted except for

1. cylinder head gasket, Ford part number XS7Z6051CA

2. a continuous o-ring of cross-section of 0.100 inches must be fitted to each intake runner groove between the intake manifold and the head which to ensures that no air by-passes the o-ring seal

t. Pump, fan, and generator drive pulleys are unrestricted.

u. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine are permitted.

v. Any spark plugs may be used.

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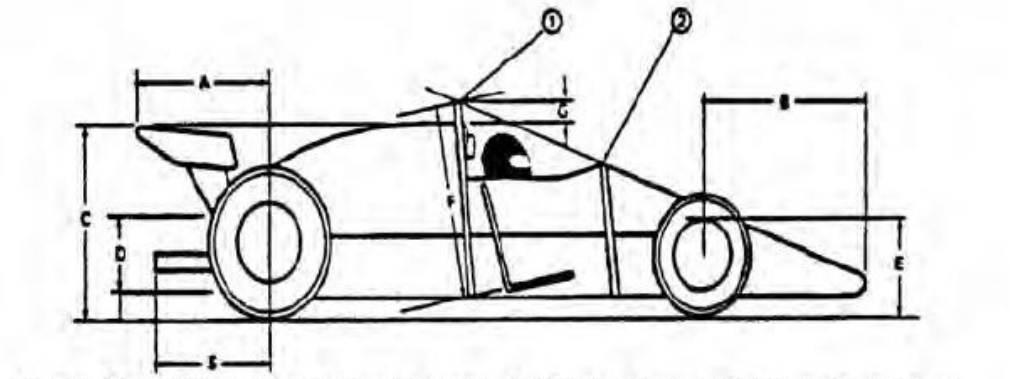
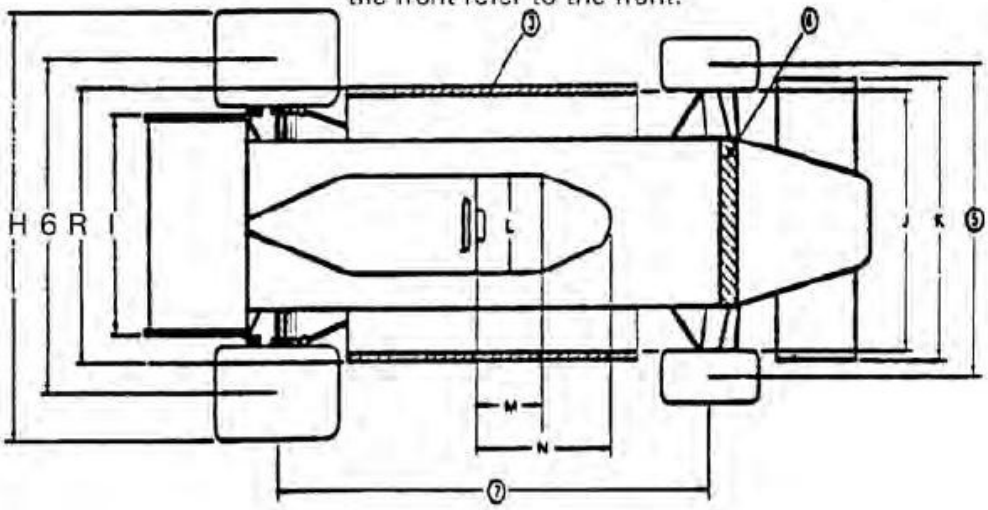


Note: Dimensions shown at the rear refer to the rear while those shown at the front refer to the front.



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Formula F and Formula Continental Dimensions Table

Dimension (refer to drawing)	Measurement (cm)
A. Maximum rear overhang from rear wheel axis	80
B. Maximum front overhang from front wheel axis	100
C. Maximum height measured from the ground	90
D. Exhaust height measured from the ground	20 - 60
E. Maximum height of any aerodynamic device	Rim height
F. Minimum safety rollover bar height in line with driver's spine	92
G. Minimum allowed helmet clearance	5
H. Maximum overall width	185
I. Maximum rear airfoil width with endplates (FC only)	95
K. Maximum nose width	135
L. Minimum cockpit opening	45
M. Minimum cockpit parallel opening length	30
N. Minimum cockpit overall opening length	60
R. Maximum body width behind front wheels	95
S. Maximum exhaust length from rear wheel axis	80
7. Minimum wheelbase	200
5. Minimum track	120

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C. F1600 PREPARATION RULES

Definition

a. A F1600or single-seat, open-wheel racing cars using standard Ford 1600 “crossflow” pushrod engines, or a Honda Fit 1500 (L15A7) overhead cam engine, with firewall, floor, and safety equipment conforming to the GCR.
b. F1600 is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. IF IN DOUBT, DON’T. Homologation is required for all cars registered after January 1, 1983.
c. Three engines are allowed in F1600:

1. The Ford 1600 GT “Kent” pushrod “crossflow” as installed in the Ford Cortina in 1971 and later. The Kent engine specifications are contained in D.1.
2. The Ford 1600 GT “Cortina” engine as installed in the Ford Cortina through 1970. The Cortina engine specifications are contained in D.2.
3. The Honda Fit (L15A7) 1500cc overhead cam engine as installed in a Honda Fit (all models starting 2009). The Honda Fit engine specifications are contained in D.3.

C.1. Kent Engine

a. General

1. Components shall not be interchanged between the Kent and Cortina versions of the engine unless specifically authorized.
2. The engine shall not be altered, modified, or changed in any respect unless specifically authorized herein. When a system is specified to be “unrestricted” (e.g. paragraphs p and q), the restrictions of this paragraph do not apply.
3. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded.
4. Valve guides are unrestricted provided the position of the valve is not changed. Standard Ford replacement valves, with oversize stems, may be used as normal repair/maintenance procedures. The specifications, in D.1.f are mandatory. It is permitted to re-cut or replace valve seats. Valve seat angles are unrestricted.
5. Exhaust emission control, air pumps, and associated lines and nozzles shall be completely removed. When these air nozzles are removed from a cylinder head, the holes shall be completely plugged.
6. Balancing of all moving parts of the engine is permitted. The pistons, rods, crankshaft, and flywheel may be lightened to their stated minimum weights. It is permitted to polish parts of the engine providing the contour of the part is not altered and can be recognized as the original part. Pistons may be balanced to the minimum weight by removing weight from the pin boss,

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the underside of the piston crown, or the bottom edge of the

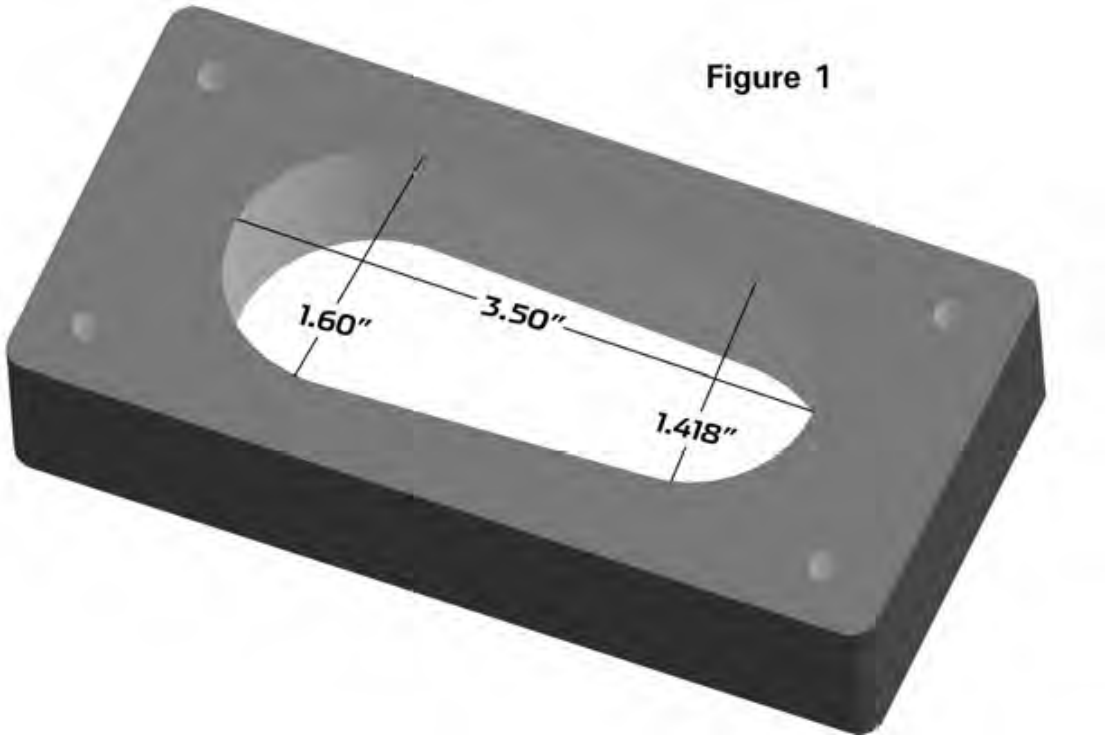

Figure 1

skirt. “Gas porting”, re-profiling, or any other modification to the piston, other than expressly permitted herein, is prohibited. Knife-edging the crankshaft throws is not permitted.

7. Compression Ratio
Maximum compression ratio: 9.3 to 1
The following specifications are used in determining compression ratio:

A. Maximum bore size: 3.200”
B. Minimum cylinder volume at Top Dead Center: 42.0cc
C. Maximum valve protrusion from head surface: .040”
D. Only approved head gaskets may be used (see D.1.c.3)

b. Block

1. Bore may be enlarged for clearance between cylinder and piston.

2. Cylinder sleeves may be fitted. The top surface of the block may be milled or surface ground to obtain the maximum compression ratio specified above. Any steel center main bearing cap may be used. The oil pump mounting face on the block may be machined for the purpose of fitting an oil pump.

3. The 1600 Fiesta block is permitted as a replacement part.

4. The Ford Racing block, part number M-6010-16K, is permitted as a replacement part.

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Cylinder Head

1. Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following dimensions:
Inlet: 1.50" Exhaust: 1.20"
2. The use of the Pierce aluminum cylinder head is permitted.
3. The following head gaskets are allowed:
A. Ford Part # 931M6051AA
B. Payen Part # AH-750
C. Felpro Part # 8360PT-1

d. Inlet Manifold

1. The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:
Maximum dimension at head face: 1.340"
2. Carburetor Flange
Maximum dimensions at carburetor flange: see Figure 1.
3. The carburetor face of the inlet manifold may be machined to the horizontal to compensate for fore/aft tilt of the carburetor.
4. Epoxy exposed in the manifold used to make repairs is acceptable, providing the total area is less than 0.75 square inches.
5. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/ vacuum lines shall be plugged.

e. Pistons

1. Standard or 0.005 inch oversize pistons shall be used.
2. Standard size AE pistons P/N 18649, casting P/N 18634, standard size CP piston, part # 81-2 FF1600, or CP oversize piston, part # 81-2- FF1600+5 may be used.
3. Alternate piston identified as follows is allowed: P/N AE-M717D, casting number 711 M 6110. AE Hepolite P/N 20552, Casting # 20548A. Note: Mahle pistons are not allowed.
4. Dimensions and Weights
Maximum diameter:
Standard: 3.187"
0.005" o/s: 3.192"
Depth of bowl: 0.470" (minimum)
Maximum diameter of bowl: 2.44" AE Hepolite,
2.50" CP Piston
Centerline of wrist pin to crown: 1.702" +/- .002"
Overall height: 3.30" AE Hepolite
2.80" CP Piston
Minimum weight 515 grams (w/ clips, pins and rings)
Weight of pin: 115 +/- 2 grams
Ring Groove Widths: Top Groove: 0.064"
2nd Groove : 0.0795"
Oil Groove: 0.159"

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5. Piston rings are unrestricted provided that:

A. One oil control and two compression rings are used.

B. No modification is made to the piston for the installation of rings.

C. Pocketing of the piston valve reliefs is allowed up to a maximum of .050" to obtain the maximum combustion chamber volume.

f. Valves

1. Dimensions
Iron head Alloy head
Distance apart at centers 1.540" +/- .020" 1.570" +/- .020"
Max. diameter:
Inlet: 1.560"
Exhaust: 1.340"
Overall length:
Inlet: 4.367" +/- .020"
Exhaust: 4.355" +/- .020"
2. Reshaping of the valves is specifically prohibited.
3. Alternate valve AE p/n V34524 (intake), V34525 (exhaust) are permitted.

g. Camshaft

1. Regrinding camshaft lobes is permitted, providing they are ground to meet FORD and SCCA profile.
2. Camshaft Lobe Centers: 109° +/- 2°
Lift at top of pushrod:
Inlet: 0.231" +/- .002" Maximum
Exhaust: 0.232" +/-.002" Maximum
Lift at spring cap: (Valve Lift)
Inlet: 0.356" Maximum
(Zero tappet setting)
Exhaust: 0.358" Maximum
3. Recontouring of the valve stem contact pad of the rocker arm is permitted, provided the maximum lift at the spring cap is not exceeded
4. Offset camshaft/sprocket dowels are permitted.
5. Camshaft profile and lobe centers shall be checked using the official procedure published by SCCA.
6. A camshaft that is a replica of the original camshaft and of the same material may be used.

h. Valve Springs

Valve springs and valve spring shims are unrestricted, except that:
1. Springs and shims shall be made of steel.
2. No more than one spring shall be used per valve.
3. Conically wound springs are not allowed.
4. The standard spring cap and retainers shall be used.

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i. Pushrods

Minimum stem diameter: 0.25”
Overall length: 7.64” Minimum
Minimum weight: 50 grams

j. Connecting Rods

Any ferrous connecting rod may be used provided it meets a minimum weight of 630 grams and has a center to center length of 4.925 +/- 0.020 inches. (Note: Weights include cap, bolts, and small end bush, but not big end bearing shells).

k. Crankshaft

An alternate cast steel crankshaft meeting original Ford Kent and SCCA dimensions and weight is permitted.
Weight: 24 lbs. 8 oz. Minimum
Max Stroke (at piston): 3.056” +/- .004”
Crankshaft pulley: unrestricted
The crankshaft from the Cortina engine may be used.
The crankshaft from the Fiesta engine may be used.
The crankshaft may be shot peened.

l. Flywheel

1. Weight with ring gear: 15.5 lbs minimum.
2. The flywheel may be machined to reduce weight to the above minimum weight. Flywheel locating dowels are permitted.
3. Weight may be added to the flywheel, providing it is added ONLY to the existing clutch bolt holes, i.e., single cap screws or set screws. No continuous material shall be used.
4. An alternate flywheel, part # JAE1600 is also allowed at the above weight of 15.5 lbs.

m. Carburetor

Weber 32/36 DGV or Holley 5200
Venturi diameter: Primary: 26mm
Secondary: 27mm
It is permitted to:
1. Fit any jets (including accelerator pump discharge nozzle) as long as no modifications to the carburetor body are required.
2. Modify or substitute the external throttle linkage.
3. Fit internal and/or external surge pipes.
4. Remove the air cleaner
5. Fit velocity stacks
6. Remove the choke butterflies and linkage.
7. Use an alternate carburetor gasket provided it is the same thickness as the original gasket and doesn’t exceed the manifold opening dimensions
8. Modify the carburetor housing for the installation of throttle

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shaft bearings provided the modification serves no other purpose.

n. Fuel Pump

Unrestricted

o. Exhaust Manifold

Unrestricted

p. Lubrication System

Lubrication system is unrestricted; any oil pump and oil sump permitted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.Dry sump system is permitted.

q. Cooling System

Cooling system is unrestricted. Any radiator, fan, water pump and drive belt permitted.Pump/fan/generator drive belt: Unrestricted

r. Electrical Equipment

Distributor: Distributors are unrestricted provided the original drive, location, and housing are retained. The distributor is defined as the component that triggers the LT current and distributes the HT current. The ignition timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition. The vacuum advance mechanism may be removed, and the distributor advance plate may be secured by soldering or welding or by suitable fasteners. The advance curve and advance springs are unrestricted. Generators/ Alternators: not required. All other electrical components are unrestricted.

s. Miscellaneous

1. The timing chain/sprocket cover may be altered or replaced.
2. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component:

A. Fasteners - nuts, bolts, screws, studs, etc. Intake manifold fasteners may be of either a socket head or hex head configuration, and must be 5/16” diameter.
B. Gaskets, except head gasket.
C. Washers.
D. Seals.
E. Connecting rod, crankshaft, and camshaft bearings of the same size and type as original. Normal oversize/undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.
F. Spark plugs.
G. Rocker pedestals that are of the same material and dimensionally identical (i.e., shaft location, offset, etc.) to the original components may be used.

3. Mechanical tachometer drive is permitted.

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4. The crankcase breather may be altered or removed.
5. The standard rocker cover may be altered to provide for crankcase ventilation, and the filler cap may be altered or replaced.
Valve or rocker covers may be substituted, provided that the replacement cover affords no additional function than that of the original stock cover. (relocated text from 8 below)
6. The crankshaft and main bearing caps may be treated with salt-bath nitriding cover under SAE specification AMS 2755A (tuftriding, etc.)
7. Any oil or lubricants may be used.
8. Water pump, fan, and generator/alternator pulley(s) are unrestricted.
9. Exhaust Outlets
Exhaust outlets on cars registered after January 1, 1986 shall not extend more than 60 cm (23.60") behind the centerline of the rear axle and shall be positioned between 10 cm (3.9") and 60 cm (23.6) from the ground, measured to the bottom of the exhaust pipe.
Exhaust Outlets: Cars registered prior to January 1, 1986.

A. It is recommended that all exhaust outlets be no longer than 60cm (23.60") behind the centerline of the rear axle and positioned between 30cm (11.8") and 60cm (23.6") from the ground.
B. For cars unable to comply with the above rule (A.), they shall have a support bracket that attaches within six (6) inches of the outlet end, and the support bracket shall extend no more than thirty (30) degrees from vertical to the rear. Beginning January 1, 1986, it is mandatory for all F1600 cars.

C.2 Cortina Engine
All of D.1 applies to the Cortina engine except as specified in this section. Components shall not be interchanged between the Kent and Cortina versions of the engine unless specifically authorized.

a. Compression Ratio
Maximum compression ratio: 10.0 to 1. The following specifications are used in determining compression ratio:
1.64cc - top ring to top of piston
5.60cc - head gasket.
Minimum unswept volume per cylinder:
44.4cc (original engine with standard pistons)
45.1cc (original engine with .030" o/s pistons)

b. Block
The 1600 Pinto block, P/N DIFZ-6010-C, may be used as a replacement for the Cortina block; Standard Pinto tappets, P/N DORY 6500A and DIFZ 6500A may also be used when this block is used as a Cortina replacement.

c. Cylinder head
Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following

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dimensions:
Inlet: 1.50” Exhaust: 1.16”
Combustion chamber:
Minimum depth 0.115”
Maximum length: 3.15”
Minimum volume per cylinder: 7.8cc
Reshaping is prohibited.
Ford Pinto cylinder head P/N DORY 6049B is permitted.

d. Inlet Manifold
The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:
Maximum Size at head face:
Cyl. 1 & 4: 1.48” x 1.28”
Cyl. 2 & 3: .25”
Maximum size at carburetor flange: 3.060” x 1.389”
Maximum width: 3.80”
Primary choke end radius: .709”
Secondary choke end radius: .787”

e. Pistons
Standard, 0.015 inch oversize or 0.030 inch oversize pistons may be used.
Piston Maximum diameter:
Standard: 3.189”
0.015” o/s: 3.204”
0.030” o/s: 3.219”
Depth of bowl: 0.500” +/-.005”
Minimum volume of bowl: 31.5cc
Maximum diameter of bowl: 2.28”
Centerline of wrist pin to crown: 1.737” +/- .002”
Overall height: 3.30”
Minimum weight
w/rings & pin: 485 grams
Weight of pin: 115 +/- 2 grams

f. Valves
Distance apart at centers: 1.540” +/- .020”
Max. diameter:
Inlet: 1.502”
Exhaust: 1.252”
Overall length:
Inlet: 4.280” +/- .006”
Exhaust: 4.260” +/- .006”

g. Crankshaft
Weight: 23 lbs. 8 oz. minimum
The crankshaft from the Kent engine may be used.

h. Carburetor
Weber 32 DFM or DFD or Holley 5200
Venturi Diameter: Primary: 26mm
Secondary: 27mm

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C.3. Honda Fit 1500 (L15A7) Engine

a. General

1. No modifications to this engine are allowed except where specifically authorized within these rules. This includes, but is not limited to, all fuel injection and engine management components, electrical, cooling and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated in the Honda Fit factory service manual, Honda PN 61TK600 and all superseding years, or as specified in these rules. The factory service manual or its equivalent is required to be in the possession of each entrant. The manual may be the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases.

2. Permitted engine maintenance includes the replacement, but not modification, of external engine and engine systems parts.

3. All rubber fluid lines may be replaced with braided metalcovered (Aeroquip type) lines. Hose clamps maybe installed on the rubber oil lines.

4. No balancing, lightening, polishing or other modification of moving parts of the engine is permitted.

5. Only stock Honda manufactured gaskets and seals as specified in the Honda Fit factory service manual are permitted (Including, but not limited to, head gasket, intake runner gaskets and O-rings, restrictor plate gasket, and intake and exhaust gaskets).

6. For all Honda part numbers in these specifications, superceding part numbers are considered equivalent.

b. Block

1. The only permitted cylinder block is Honda PN: 11000-RP3-810

2. Honing of cylinders is permitted to a maximum diameter of 73.065 mm (2.8766 inches). Fitting of cylinder sleeves is prohibited. Re-boring to over size is prohibited.

3. Block must use stock main bearing caps, girdle and hardware as supplied.

4. Minimum deck height from crank centerline: 220.00 mm (8.661 inches).

c. Crankshaft

1. The stock Honda Fit crankshaft, Honda PN: 13310-RB1-000, must be used with no modifications allowed.

2. Minimum weight: 27.7 lbs. No pilot bearing, pulsar or hardware.

3. Maximum stroke at piston: 89.55mm (3.526 inches)

4. Main and rod bearings must not be modified in any way. OEM bearings must be used from within the standard range as allowed in the Honda Fit factory service manual.

5. The crank pulsar must not be altered in any way.

6. The crank pulley/balancer must not be altered or modified in any way.

a. Minimum weight: 3.90 lbs.
b. Honda PN: 13810-RB0-003.

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d. Connecting Rods

1. Stock Honda Fit connecting rod must be used PN: 13320-RB1-000.

2. Minimum connecting rod weight with cap and bolts: 280.0 grams (9.88 ounces).

3. Maximum connecting rod length center to center: 149.05mm (5.868 inches).

e. Pistons

1. Honda Fit OEM standard size pistons, PN: 13010-RB1-000, must be used.

2. The use of over size pistons is not permitted.

3. Piston dimensions and weights:

a. Maximum standard piston diameter, measured at a point 16mm from the bottom of the skirt: 72.990mm (2.8736 inches).

b. Centerline of wrist pin to crown maximum: 26.21mm (1.032 inches).

c. Maximum overall height from skirt to crown edge: 47.80mm (1.882 inches).

d. Minimum weight: 198.0 grams (6.984 ounces).

e. Minimum weight of piston pin: 66 grams (2.25 ounces).

f. Combined minimum weight of piston, piston pin and connecting rod: 543.5 grams (18.85 ounces).

4. Piston rings must be as used in the Fit engine. Two compression rings and one 3 piece oil control ring must be used.

a. The standard ring pack PN 13011-RB1-004 (Riken) or 13011-RB1-006 (Nippon).

b. No modification of the piston is permitted for the installation of rings.

c. Ring groove widths.

Top ring groove: 1.04mm (0.0409 inches) +/- 0.01mm.

Middle groove: 1.02mm (0.04016 inches) +/- 0.01mm.

Oil ring groove: 2.00mm (0.07874) +/- 0.01mm.

d. Ring gaps must be from 0.006 inch to 0.024 inch.

f. Cylinder Head

1. The only permitted heads are Honda PN:
12200-RB0-G00 (2009-2010) (US spec)
12200-RP3-A00 (2010-2012) (US spec)
12200-RB0-000 (Japan Spec)

2. The gasket face of the cylinder head may be resurfaced to a service limit of 0.2mm(0.008 inches) based on a height of 120.0mm (4.720 inches). However, the maximum compression ratio of 10.55:1 may not be exceeded.

3. The cylinder head must not be ported, polished or machined. The original casting must not be modified in any way or polished.

4. Head gasket to be stock Honda Fit PN: 12251-RB0-004. Minimum compressed thickness of 0.76 mm +/- 0.05mm.

5. Cylinder head breather restrictor must be used as supplied by HPD, unmodified. PN: 15262-F21S-A200.

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g. Camshaft

1. The only permitted camshaft is PN: 14110-RB1-J00; must not be modified.

2. The CMP pulse (cam trigger) plate must be as supplied, Honda PN 14221-RB0-003.

3. The camshaft and crankshaft sprockets must be as supplied, Honda PNs: 14211-RB0-J00 and 13621-RB0-003, respectively. Cam timing must not be altered; the timing chain must be installed as specified in the Honda Fit factory service manual. The timing chain/sprocket cover and crankshaft pulley may not be altered. With the engine at TDC (No. 1 cylinder), the "UP" mark on the camshaft sprocket must be at the top and the TDC grooves on the camshaft sprocket must line up with the top edge of the cylinder head.

a. Timing chain Honda PN: 14401-RB1-003.
b. Case assy, chain (sprocket cover) PN: 11410-RB1-000
c. Pulley comp, crankshaft, PN: 13810-RB0-003
d. Cam timing at lobe centers: (at 1mm after opening to 1mm before closing).
i. Exhaust: 119 degrees, +/-1.0 degree.
ii. Intake VTEC on: 111 degrees, +/-1.0 degree.

4. Camshaft profile and lobe centers shall be checked using the official procedure published by the SCCA.
5. Cam lobe heights: Intake, Primary: 35.240mm, secondary: 36.200mm, exhaust: 35.490mm.
6. Valve lift measured at the retainer:
a. Exhaust: 9.200mm
b. Intake VTEC off: 8.680mm
c. Intake VTEC on: 9.900mm
7. Valve rockers must not be modified in any way.
a. Honda PN: 14620-RB1-010 Arm Assy, rocker.
8. The VTEC system must be stock. The VTEC activation valve must be stock. The HPD ECU will activate the VTEC at 5200 RPM. Honda PN: 15810RB0-G01.

h. Valves

OEM valves must be as used in the Fit.

1. Dimensions
a. Inlet PN: 14711-RB0-000 Exhaust PN: 14721-RB0-000
b. Maximum diameter: Inlet: 28.15mm Exhaust: 23.15mm
c. Maximum overall length: Inlet: 119.15mm Exhaust: 117.85mm
d. Minimum stem diameter: Inlet: 5.45mm Exhaust: 5.42mm
2. Valve location or angle must not be moved.
3. Reshaping of the valves is strictly prohibited.
4. Valve guides may be replaced provided the position of the valve is not changed and the replacement guides are Honda OEM parts.
Inlet PN: 12204-PJ7-305 (over size)
Exhaust PN: 12205-PJ7-305 (over size).
5. It is permitted to replace or re-cut valve seats provided the valve seat angles are stock Honda three angle cut per the Honda Fit factory service manual.

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6. Valve stem installed height must be per The Honda Fit factory service manual:
Intake maximum: 46.8mm.
Exhaust maximum: 46.9mm.
7. Valve stem seals must be Honda OEM parts.
Honda PN: Intake: 12210-PZ1-004 seal A.
Honda PN: Exhaust: 12211-PZ1-003 or 12211-PZ1-004 seal B.

i. Valve Springs

1. Valve springs are Honda OEM as specified in the Honda Fit factory service manual.
    a. Intake PN: 14761-RB1-003, free length: 48.55mm.
    b. Exhaust PN: 14762-RB1-007, free length: 54.52mm.
2. Valve spring shims are not permitted.

j. Compression Ratio

The maximum compression ratio is 10.55 to 1 utilizing Honda Fit factory service manual limits. Carbon may be removed.

k. Intake Manifold and Fuel System

1. The lower manifold must be stock Honda Fit parts. It is not permitted to add or remove material. No coating is permitted on the exterior or interior of the manifold. (SCCA Club Racing will have a standard port model for comparison.)
Honda PN: 17100-RB1-000
2. The upper manifold, air box and throttle body assembly must be used as delivered from HPD. External throttle return springs are unrestricted.
a. Air filters are unrestricted. All air entering the engine must pass through the air filter prior to entering the throttle body. No devices such as, but not limited to, air horn(s), trumpet(s), bell mouth(s), velocity stack(s), vortex generators and or turning vanes are permitted inside the air filter or between the air filter and the throttle body.
3. All gaskets and sensors utilized on the inlet manifold from head to throttle body must be Honda Fit OEM or HPD supplied.
    a. Gasket In. manifold: 17105-RB0-004, Honda Fit OEM.
    b. Gasket, EGR chamber cover: 17146-RB0-004, Honda Fit OEM.
    c. Gasket In. port: 17115-RB0-007, Honda Fit OEM.
    d. Gasket, restrictor: 17399-F21S-A200, (2 required) HPD.
4. The fuel rail must be as supplied by HPD. Injectors must be stock Honda Fit OEM parts (PN 16450-RNA-A01). The fuel pressure regulator may be the unit supplied by HPD or any alternate as long as the fuel pressure regulator serves no additional purpose. Injectors must be stock Honda Fit OEM parts (PN 16450-RNA-A01).
5. The Honda Fit engine is required to have an HPD supplied air inlet restrictor with internal diameter of 30.5mm and thickness of 3.175mm (0.125 inches) correctly installed within the intake system. The restrictor may not be modified in any way; the specified value can not be exceeded in any measurement of the diameter. The restrictor centerline or shape must not be altered. SCCA Club Racing will have go-no go gauges to verify that all competitors are in compliance.

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l. Fuel Pump

1. The fuel pump is unrestricted.

m. Exhaust Manifold

1. The exhaust manifold must be as supplied by HPD, HPD part #18150-F21S-A200 or #181850-F21S-B200.
2. The exhaust manifold exit may be shortened within HPD specified limits to direct the tail pipe as necessary. The exhaust pipe must maintain a 2 inch outside diameter from the manifold exit to its outlet and must meet 9.1.1.D.1.s.9.
3. The Lambda sensor may be placed anywhere in the exhaust system after the required exhaust manifold.
4. Exhaust coatings and wraps and heat shields may be used to control engine bay temperatures and protect other components.

n. Lubrication System

1. The oil pan must be as supplied by HPD. No modifications are permitted.
2. Oil feed pump must be stock Honda Fit. No modifications are permitted. Oil pressure may be adjusted for wear.
    a. The oil pressure sensor location must be as supplied by HPD.
    b. It is recommended that oil pressure be maintained at the factory service manual specification.
3. The scavenge pump must be as supplied from HPD. No modifications are permitted.
    a. Rotor length: 25.400mm (1.000 inches)
    b. Rotor outside diameter: 44.400mm (1.748 inches)
4. Scavenge drive pulleys must be as supplied by HPD. Drive belt manufacture is unrestricted provided the belt type and dimensions are as specified by HPD.
5. Hose routing and filter system are unrestricted.

o. Cooling System

1. Water pump and water pump pulley must be stock Honda Fit parts. No modifications are permitted.
Honda PN: 19200-RB0-003 Pump, water.
Honda PN: 19224-RB0-000 Pulley, water pump.
2. The water inlet and outlet at engine must be as supplied by HPD. The thermostat is unrestricted provided the housing is not modified. The thermostat bypass may be plugged.
3. Drive belt manufacture is unrestricted provided it is designed for use with Honda Fit crank pulley.
4. Radiator is unrestricted.

p. Electrical Equipment

1. The ECU and engine electrical harness must be as supplied by HPD. No modifications are permitted.
2. The ECU will be a sealed unit supplied by HPD. The ECU maps and inputs must not be modified The ECU is capable of being swapped in the case of a protest.
3. Ignition coils must be stock Honda Fit, PN: 30520-RB0-003. No modifications are permitted.
4. All sensors related to engine operating parameters and/or supplied by HPD must be used. These sensors, their locations and mounts, and their wiring harness leads may not be altered or “piggy backed”. Any sensors required for analog type

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gauges must be in addition to the HPD supplied sensors.
5. The alternator must be stock Honda Fit PN: 31100-RB0-004 or HPD part #3100-F21S-A200. The alternator drive pulley must be stock. Alternator connections must be through the HPD engine electrical harness only. The alternator must not be disabled and must be accessible to F1600 officials.

q. Flywheel

1. The stock Honda Fit flywheel must be used. No modifications are permitted except for normal resurfacing for clutch wear.
    a. Stock Honda flywheel PN: 22100-RB0-005.
    b. Minimum weight with ring gear: 14.4 lbs.
2. The stock Honda Fit clutch must be used. No modifications are permitted.
    a. Honda PN: 22300-RB0-005.
    b. Minimum weight without friction disk: 7.0 lbs.
3. Stock Honda friction disk must be used. No modifications are permitted.
    a. Honda PN: 22200-RB0-005.
    b. Weight of new friction disk: 2.1 lbs.

r. Miscellaneous

1. All emission control devices must be removed and blocked off by the blanking plate provided by HPD, except the VTEC activation valve. The VTEC activation valve must be retained; it must be functioning.
2. Air filter is unrestricted.
3. The use of unleaded premium “pump” gas: 91 – 93 RON is recommended.
4. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component.
    a. Fasteners – nuts, bolts, screws, washers, studs, etc. Head bolts, rod bolts, flywheel bolts, and crank pulley bolt must be used as provided by Honda and HPD.
    b. Gaskets and seals, except those specified in the above rules.
    c. Spark plugs.
    d. Mechanical tachometer and analog gauges.
    e. Oil and lubricants are unrestricted. HPD strongly recom mends the use of oil and lubricants as described in the Honda Fit factory service manual.
    f. The oil filler cap may be removed and plugged.

C.4. Transmission

Any transmission may be used with not more than four (4) forward gears and an operational reverse gear.

a. The use of automatic and/or sequentially shifted gearbox is prohibited.
b. Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited.
c. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exception are the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts). All change gears must be located in the case aft of the final drive.

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C.5. Final Drive

Any final drive unit may be used except:

a. Drive shall be to rear wheels only.

b. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

C.6. Clutch

The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel, and provided that it shall have an operable clutch system. Carbon Fiber clutches are not permitted.

C.7 General Construction Restrictions

NOTE: Contained herein are the 1986 Formula F chassis construction requirements revised January 1, 2013. All new Formula F are to be built to these specifications. Any class-specific differences are stated explicitly. For cars registered prior to January 1, 1986, see section SCCA GCR B.21.

e. Titanium, boron, beryllium, lithium-aluminum alloys, and metal matrix composites are prohibited.
f. Composite materials containing fibers with a tensile modulus in excess of 100 GPa (this definition includes carbon fiber, Kevlar, Zylon, and Dyneema) are prohibited unless specifically permitted.
g. Fuel Capacity: Maximum capacity 41 liters (10.8 gallons)
h. Refer to the Formula F and Formula 2000 Dimensions Table for general dimensional limitations.

C.8 Chassis/Frame

n. The chassis shall be of steel space frame construction. Monocoque-type structures are prohibited.
o. The soles of the driver's feet shall not extend beyond the front edge of the wheel rims in normal position (i.e., pedals not depressed) and shall remain behind the front bulkhead (per SCCA GCR 9.4.5). The lower main frame rails shall be a minimum of 25 cm (9.8 inches) apart (inside dimension) from the front bulkhead to the rear roll hoop.
p. Forward-facing braces that protect the driver's legs and feet shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the transverse section of the frame immediately ahead of the pedals and drivers feet.) This does not preclude a secondary forward bulkhead ahead of this "front" bulkhead. This secondary bulkhead may be constructed from aluminum plate.
q. A stress bearing floor pan constructed from a minimum of 1.5 mm (.060 inch) heat treated aluminum sheet or 18 gage steel sheet is required. At a minimum, it shall extend from the front bulkhead to the rear roll hoop bulkhead. Its curvature shall not exceed 25.4 mm (1.0 inch). The floor pan

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may be constructed in multiple sections.

r. The front bulkhead, forward roll hoop (dash hoop) bulkhead and main hoop bulkhead may also utilize stress-bearing panels. No other stress-bearing panels are allowed.

s. Stress-Bearing Panel Definition: Any sheet material that is attached to the frame by welding, bonding, riveting, threaded fasteners, or any combination thereof, the centers of which are located closer than 15 cm (6 inches). The distance between fasteners is measured on the surface of the panels. No materials other than aluminum or sheet steel are allowed for use as stress-bearing panels. Stabilized materials (honeycomb) are not permitted as stress-bearing panels.

t. The area between the upper and lower main frame tubes from the front roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by at least one of the following methods to prevent the intrusion of objects into the cockpit. Panels may extend forward to the secondary bulkhead of C.8.p and aft to the front face of the engine to protect the fuel cell.

    4. Panel(s), minimum of either 1.5 mm (.060 inch) heat treated aluminum (6061-T6 or equivalent) or 18 gage steel, attached to the outside of the main frame tubes.
    5. Reinforced body consisting of at least two layers of 5 ounce, bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame. (5 or more layers are highly recommended.)
    6. Composite panels attached to the outside of the main frame tubes. These panels must be at least 1.5 mm (.060 inch) in thickness and at least as strong as 1.5 mm (.060 inch) 6061-T6 aluminum. They may be constructed from any material including those defined in C.7.f.

For any of these methods, panels may not be attached to the frame with fasteners closer than 15 cm (6 inch) centers measured along the surface of the panel. The steel tubes used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

u. The engine, bell housing/oil tank and gearbox are permitted to be stressed and/or load bearing. Bell housings and gearbox housings must be metal.

v. A firewall(s) that seals the drivers' compartment (cockpit) and the engine compartment is required. Forward facing ducts may be installed to deliver air directly to the engine compartment. Air duct openings may be located within the cockpit provided the firewall is extended to prevent the passage of flame and debris from reaching the driver.

w. Brackets for mounting components, such as the engine, transmission, suspension pickups, instruments, clutch and brake components, and body panels may be made from any material not prohibited in C.7.f.

x. Impact attenuator(s) are required: See SCCA GCR 9.4.5.D.

y. No engine oil or water tubes are allowed within the cockpit, except for shielded (stainless steel braid) mechanical oil pressure lines. Chassis tubes shall not be used as oil or water transport tubes.

z. Fuel cell vents shall be located at least 25 cm (9.8 inches) to the rear of the cockpit.

C.9. Bodywork

For the purposes of this section, bodywork includes all panels external to the chassis/frame and licked directly by the air stream. This includes

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panels above or below the floor pan, and the bottoms of any side pods.

a. The bodywork opening giving access to the cockpit shall have the following minimum dimensions:
Length: 60cm (23.62 inches)
Width: 45cm (17.72 inches)
This width extends over a length of 30cm (11.81 inches) minimum. This minimum rectangular opening may exist anywhere forward of the firewall. Forward-facing roll bar/cage bracing and padding will not be considered in these dimensions.

b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel, with the exception of the steering wheel and/or drivers head surround. The steering wheel and the surround must be removable by the driver and/or safety workers without the use of any tools. Readily legible removal instructions for safety workers are recommended.

c. Bodywork (including undertrays, floor pan, spoiler and any attached components except for suspension components) shall not exceed a maximum width of 95cm (37.40 inches). No part of the bodywork, rear spoiler, or exhaust system shall extend more than 100cm (39.37 inches) behind the centerline of the rear axle nor exceed in height a horizontal plane 90cm (35.43 inches) above the ground with the car as qualified or raced with the driver on board. The safety roll bar/roll cage and engine air box are not included in these restrictions. Bodywork shall not increase in width behind the centerline of the rear axle in any horizontal section.
There shall be no forward facing gaps or openings in the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling. All bodywork shall be firmly attached to the chassis.
For F1600, a wing shall be defined as any shape that has a leading edge and a trailing edge and creates downforce. Wings and other airfoil devices ("dive planes", etc.), whose primary purpose are to create aerodynamic downforce, are prohibited. Any part of the car which that has an influence on the aerodynamic stability of the vehicle shall be firmly attached with no provisions for adjustment to vary downforce. A single rear spoiler, that may be capable of adjustment, is permitted. Cockpit adjustment is not permitted. This spoiler shall be no wider than the surface to which it is attached, and there shall be no gap between the spoiler and the body surface to which it is attached.

d. It is the intent of these rules to minimize (not eliminate) the use of "ground effects". A reference area is defined by the full width of the lowest surfaces of the car licked by the air stream between the front axle centerline and the rear of the rear tires. These surfaces may include the floor pan, undertrays, side pod bottoms and any essentially horizontal bodywork that is included in the lowest surfaces licked by the air stream. Within this reference area, the lowest surfaces licked by the air stream must be flat with a total vertical tolerance of 2.54cm.. An undertray beneath the engine,

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bell housing and/or gearbox is not required.
(For FF only) No part of bodywork is allowed to have any downturned fences or intermediate strakes and no bodywork below the horizontal centerline of the differential and to the rear of the rear tires may be wider than 16 inches.
The perimeter of any reference area surface that transitions upward to any bodywork may use a maximum 1 inch radius.
Mirrors and any primarily vertical bodywork (e.g., cockpit sides) that extend laterally past the outer edges of the floor pan and/or undertrays are not subject to the reference area restrictions.
Fairings for streamlining suspension pickups are not subject to the reference area restrictions; however, such fairings shall be symmetrical about their horizontal axis.

Measurement for compliance of the defined area shall be performed as follows:

1. A non-flexible straight-edge bar shall be placed against the lower surface of the reference area in a suitable section (unworn and flat enough to prevent rocking of the bar) from which the bar can be oriented to measure all parts of the reference area. The competitor shall be responsible for the availability of such a surface. The bar shall be of sufficient length to reach all portions of the reference area from that surface.

2. All measurements shall be taken vertically from the bar to the reference
area surfaces. The total maximum vertical distance (additive upward and downward) from the bar to any part of the reference area surfaces shall be 2.54 cm. Skid blocks and or rub strips are not included in this measurement.
No aerodynamic devices (e.g., skirts, body sides, skid “planks”, undertrays, skid blocks, etc.) may extend more than 1 cm (.394 inches) below the reference area.
Shaping of the lower surfaces to create “venturi” type tunnels is prohibited. An example of venturi tunnels is shown in the following figure.

e. It is not permitted to duct air through any part of the bodywork for the purpose of aerodynamic downforce. All ducted air for heat exchangers shall pass through those heat exchangers.

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f. Carbon fiber is not permitted in any external bodywork. Cockpit interior panels, internal ductwork, air intakes and mirrors are not subject to this restriction. Kevlar may be used for reinforcement of any bodywork.

g. Fuel cell vents shall be located at least 25cm (9.84 inches) to the rear of the cockpit.

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C.10. Suspension

Suspension is defined as the system of springs, shock absorbers, control arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering components, etc., are not considered as suspension in this section.

All suspension components shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings, bushings, spring caps, abutment nuts, shock absorber caps and nuts. Titanium and carbon fiber are prohibited.

Front and rear hub carriers shall be only steel or aluminum alloy for cars manufactured after January 1, 1983. (applies to FF only) Springs shall be steel only.

Control arms and all associated items that attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit.

Shock absorbers: Design - unrestricted; casing material: steel or aluminum alloy.

All components that are not defined as chassis/frame or suspension are unrestricted, unless otherwise restricted by these rules or the GCR. Titanium is prohibited. Carbon fiber is prohibited

It is not permitted to attach spoilers, fairings or other devices that may exert downforce to the movable suspension members. If the suspension member is of streamline or airfoil cross section, it shall be symmetrical about its horizontal axis. Brake lines may be attached to suspension members. Brake lines may be enclosed in a symmetrical fairing.

C.11. Brakes

Unrestricted, except:

a. Maximum of 2 pistons allowed per caliper. Calipers must be ferrous or aluminum alloy.

b. Brake rotors are restricted to ferrous material.

C.12. Wheels

Wheels are unrestricted except that:

a. Material is unrestricted providing it is metal.

b. Diameter shall be thirteen (13) inches.

c. Rim width shall not exceed 5.5 inches.

C.13. Weight

Minimum weight as qualified or raced, with driver:

1050 lbs. Ford Cortina Engine

1100 lbs. Ford Kent and Honda Fit Engines

C.14. Euro Spec F1600

Those cars constructed under the English FF regulations must comply with the following Articles as published in the English FF regulations (Formula Ford 1600 – Formula Ford Championship of Great Britain: Dated 01/01/2010; Version 1)

Article 3 – Bodywork and Dimensions

Article 13 – Cockpit

Article 15 – Safety Structure

Appendix A excepting wheel width and ground clearance.

Allowed engines: 1600cc Ford Kent or 1500cc Honda Fit per SCCA rules.

Wheels, weight, transmission and all other items not specifically governed by the

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aforementioned English rules must comply with current SCCA FF rules.
Tires are governed by current Formula Race Promotions spec tire.
Competitors must have the English FF rules in their possession and present same upon request.

C.15. Cars Registered Prior To 1/1/86

The following specifications are for cars registered prior to January 1, 1986 and for Technical Inspection only. No cars are to be built to these specifications as of January 1, 1986.

A. Chassis/Frame

The chassis is defined as the frame. It shall be a steel space frame. Monocoque-type structures are prohibited. Sheet material affixed to the frame by welding, bonding, or riveting, or by bolts or screws

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which are six (6) inch centers are defined as stress-bearing panels. The undertray, for safety reasons, shall be a stress-bearing panel. Its curvature shall not exceed one (1) inch. The mountings for brake and clutch pedals and cylinders, and for the instrument panel and the bulkhead (panel) behind the driver may be stress-bearing. No other stress-bearing panels are permitted.
Brackets for mounting components, such as the engine, transmission, suspension pick-ups, instruments, clutch, and brake components, and body panels may be non-ferrous, of any shape, and fastened to the frame in any manner.
Gussets are defined as of steel, fastened to a maximum of two (2) members, and are specifically permitted.
The firewall portion of the bulkhead (panel) shall extend the full width of the cockpit and be as high as the top of the carburetor. Forward facing air ducts may be installed for the purpose of delivering air directly to the engine area. Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the driver. (Any shape may be used to form firewall extension.) All firewall inlets shall prohibit passage of flame and debris.

B. Suspension and Running Gear
Suspension is defined as the system of springs, shock absorbers, A-arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering rack housings, steering links, etc., are not classified as suspension or running gear for this application.
All components shall be of steel, with the exception of hubs, hub adapters, rear hub carriers, and bearings and bushings. Front hub carrier material shall be of steel or aluminum alloy. The materials for front and rear hub carriers on cars manufactured after January 1, 1983 will be only steel or aluminum alloy. Springs: steel only, titanium is prohibited.
Shock absorbers: Design: Unrestricted.
Casing Material: Steel or aluminum alloy.
All components which are not defined as chassis/frame or suspension or running gear are unrestricted, unless otherwise restricted by the GCR. Titanium is prohibited.

C. Body

1. Definition of Bodywork
Internally: All visible parts of the passenger compartment.

a. The bodywork opening giving access to the cockpit shall have the following minimal dimensions:
Length: 60cm (23.622 inches)
Width: 45cm (17.72 inches)
This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the firewall. Forward facing roll bar/ cage bracing and required padding will not be considered in these dimensions.

b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel.

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c. Bodywork, including fuel tanks, shall not exceed a maximum width of 95cm (37.4 inches).
d. No part of the bodywork and aerodynamic devices shall exceed the height of a horizontal plane 90cm (35.4 inches) above the ground. The safety roll bar/roll cage and engine air box are not included in this height restriction. Measurements are to be made in any condition, driver on board.
e. No part of the bodywork shall extend more than 100cm (39 inches) behind the centerline of the rear axles.
f. Any specific part of the car which has an aerodynamic influence on the stability of the vehicle shall be firmly fixed with no provisions for adjustment to vary downforce.
g. Side-mounted radiators (behind the front wheels) may extend beyond the 95cm (37.4 inches) limitation, but not beyond a vertical plane passing through the centerlines of the front and rear tires. Any portion of a radiator that extends beyond the 95cm (37.4 inches) limitation cannot be covered with any type of shrouding. Radiators mounted in front of the front wheels are considered front mounted and cannot exceed the 95cm (37.4 inches) limitation.

2. Wings and other airfoil devices which have the principal effect of creating aerodynamic down-thrust are prohibited. Airfoil: Any device or part of a car (excepting normal and conventionally styled bodywork) which has a principal effect of creating aerodynamic downthrust. Within this definition may be included forward facing gaps or openings in the bodywork, but shall not include spoilers in the form of raised surfaces, continuous with the body surface, and not wider than the body surface.

3. It is the intent of these rules to minimize the use of “ground effects” to achieve aerodynamic down-force on the vehicle. Thus, for the full width of the body between the front and rear axles, the lower surface (surface licked by the air-stream) shall not exceed 2.54cm (1 inch) deviation from the horizontal in any longitudinal section through that surface. (This is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission, or final drive housing.) No aerodynamic devices (e.g., skirts, body sides, etc.) may extend more than 1cm (0.394 inches) below the lower surface of the tub or chassis floor to the rear of the front axle. Seat buckets or other protrusions shall not circumvent this rule. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers.

4. Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

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